IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Attorney Docket No.: 15272US02

In the Application of:	)	
	)	
Gaikwad, et al.	)	**Electronically Filed On May 24, 2010**
	)	
Serial No.: 10/817,094	)	
	)	
Filed: April 2, 2004	)	
	)	
For: RSSI SLOPE CALIBRATION TECHNIQUE	)	
	)	
Examiner: Lu, Zhiyu	)	
	)	
Group Art Unit: 2618	)	
	)	
Confirmation No.: 2127	)	

APPEAL BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The Applicants respectfully request that the Board of Patent Appeals and Interferences reverse the final rejection of claims 1-7 and 9-23 of the present application. This Appeal Brief is timely because it is being filed within 1 month of the Notice of Panel Decision from Pre-Appeal Brief Review mailed on May 4, 2010.

REAL PARTY IN INTEREST
(37 C.F.R. § 41.37(c)(1)(i))

The real party in interest is Broadcom Corporation, having a place of business at 16215 Alton Parkway, Irvine, California 92619.

RELATED APPEALS AND INTERFERENCES
(37 C.F.R. § 41.37(c)(1)(ii))

The Applicants are not currently aware of any proceedings that may be related to, directly affect or be directly affected by, or have a bearing on the Board's decision in the present appeal.

STATUS OF THE CLAIMS
(37 C.F.R. § 41.37(c)(1)(iii))

The present application includes claims 1-7 and 9-23, all of which stand rejected. Claim 8 was canceled without prejudice or disclaimer.[1] The Applicants identify claims 1-7 and 9-23 as the claims that are being appealed. The text of the claims involved in this Appeal is provided in the Claims Appendix.

STATUS OF AMENDMENTS
(37 C.F.R. § 41.37(c)(1)(iv))

Subsequent to the final rejection of claims 1-7 and 9-23 mailed November 13, 2009, the Applicants filed a Notice of Appeal and Pre-Appeal Brief Request for Review.[2] The Notice of Panel Decision from Pre-Appeal Brief Review indicates that the application should proceed to the Board of Patent Appeals and Interferences.[3] No claims were amended in response to the final rejection of claims 1-7 and 9-23.

[1] *See* May 21, 2007 Amendment.
[2] *See* January 28, 2010 Notice of Appeal and Pre-Appeal Brief Request for Review.
[3] *See* May 4, 2010 Notice of Panel Decision from Pre-Appeal Brief Review.

SUMMARY OF CLAIMED SUBJECT MATTER
(37 C.F.R. § 41.37(c)(1)(v))

Independent claim 1 recites the following:

A method of operating a radio frequency communication system having a receiver portion circuitry and transmitter portion circuitry,[4] the method comprising:

arranging the transmitter portion in a first transmitter configuration and the receiver portion in a first receiver configuration;[5]

taking a first signal power measurement;[6]

configuring the transmitter portion in a second transmitter configuration and the receiver portion in a second receiver configuration, wherein the first transmitter configuration is different than the second transmitter configuration and the first receiver configuration is different than the second receiver configuration;[7]

performing a second signal power measurement;[8] and

adjusting the operation of the receiver portion based upon the first signal power measurement and the second signal power measurement,[9] wherein the adjusting comprises modifying at least one threshold related to processing of receive signal strength indicator data used in the operation of the radio frequency communication system.[10]

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[4] *See* present application at, for example, page 3, lines 2-21.
[5] *See id.* at, for example, page 3, lines 4-5, page 7, lines 11-28, page 16, lines 1-4, Figure 1, refs. 110, 120, Figure 5A, ref. 510A.
[6] *See id.* at, for example, page 3, line 5, page 8, lines 2-14, page 16, lines 4-5, Figure 5, ref. 512A.
[7] *See id.* at, for example, page 3, lines 5-6, page 16, lines 5-6, Figure 5A, ref. 514A.
[8] *See id.* at, for example, page 3, lines 6-7, page 16, lines 6-7, Figure 5A, ref. 516A.
[9] *See id.* at, for example, page 3, lines 7-8, page 16, lines 11-13, Figure 5A, ref. 520A.
[10] *See id.* at, for example, page 3, lines 16-18, page 11, lines 13-30, page 15, lines 10-27, page 16, lines 13-16.

Independent claim 15 recites the following:

A radio frequency communication system[11] comprising:

transmitter circuitry[12] for generating a radio frequency signal,[13] the output of the transmitter circuitry coupled to at least one[14] antenna;[15]

switching circuitry[16] having an input coupled to the at least one[17] antenna,[18] an output,[19] and at least a first mode and a second mode of operation,[20] the first mode of the switching circuitry passing a signal from the input to the output with a relatively lower level of attenuation,[21] and the second mode of the switching circuitry passing a signal from the input to the output with a relatively higher level of attenuation;[22]

receiver circuitry[23] for accepting a radio frequency signal from the output of the switching circuitry,[24] the receiver circuitry producing at least a receive signal strength indicator;[25] and

the radio frequency communication system adjusting at least one characteristic of the receive signal strength indicator based on two signal power measurements using the switching circuitry and the transmitter circuitry.[26]

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[11] *See id.* at, for example, page 4, lines 1-14, page 16, lines 17-20, Figure 6, ref. 600.
[12] *See id.* at, for example, page 7, lines 11-28, page 16, lines 21-24, Figure 1, refs. 110, 120, Figure 6, ref. 650.
[13] *See id.* at, for example, page 4, lines 2-3, page 16, lines 21-24, Figure 6, ref. 690.
[14] *See id.* at, for example, page 7, lines 11-28, page 16, line 26 to page 17, line 1, Figure 1, refs. 119 and 129, Figure 6, ref. 605.
[15] *See id.* at, for example, page 4, line 3, page 16, line 26 to page 17, line 1, Figure 6, ref. 605.
[16] *See id.* at, for example, page 9, lines 1-12, page 17, lines 3-15, Figure 2, ref. 210, Figure 6, ref. 610.
[17] *See id.* at, for example, page 9, lines 1-12, page 17, lines 5-7, Figure 2, ref. 205, Figure 6, ref. 610.
[18] *See id.* at, for example, page 4, lines 4-5, Figure 6, ref. 610.
[19] *See id.* at, for example, page 4, lines 4-5, page 17, lines 3-15, Figure 6, ref. 610.
[20] *See id.* at, for example, page 4, lines 5-6, page 17, lines 8-10.
[21] *See id.* at, for example, page 4, lines 6-7, page 9, lines 1-12, page 17, lines 8-9.
[22] *See id.* at, for example, page 4, lines 7-9, page 9, lines 1-12, page 17, lines 9-12.
[23] *See id.* at, for example, page 7, lines 11-28, page 17, lines 16-23, Figure 1, refs. 110, 120, Figure 6, refs. 620, 630, and 640.
[24] *See id.* at, for example, page 4, lines 9-11, Figure 6, ref. 610.
[25] *See id.* at, for example, page 4, lines 11-12, page 17, line 24 to page 18, line 3, Figure 6, ref. 640, 680.
[26] *See id.* at, for example, page 4, lines 12-14.

Independent claim 23 recites the following:

A radio frequency communication system[27] comprising:

transmitter circuitry[28] configured to be arranged in first and second configurations, wherein the first configuration is different than the second configuration;[29]

switching circuitry;[30] and

receiver circuitry[31] for accepting a radio frequency signal from the switching circuitry,[32] the receiver circuitry producing at least a receive signal strength indicator;[33]

the radio frequency communication system adjusting at least one characteristic of the receive signal strength indicator based on two signal power measurements using the switching circuitry and the transmitter circuitry.[34]

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL (37 C.F.R. § 41.37(c)(1)(vi))

- Claims 1-5, 10, 12, 14-19, 22, and 23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 6,272,322 ("Su") and U.S. 7,212,798 ("Adams").
- Claims 6, 7, 20, and 21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Su in view of Adams and U.S. 6,603,810 ("Bednekoff").
- Claim 9 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Su in view of Adams and U.S. 6,704,352 ("Johnson").
- Claims 11 and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Su in view of Adams, and U.S. 5,999,803 ("Kim").

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[27] *See id.* at, for example, page 4, lines 1-14, page 16, lines 17-20, Figure 6, ref. 600.
[28] *See id.* at, for example, page 7, lines 11-28, page 16, lines 21-24, Figure 1, refs. 110, 120, Figure 6, ref. 650.
[29] *See id.* at, for example, page 3, lines 4-6.
[30] *See id.* at, for example, page 9, lines 1-12, page 17, lines 3-14, Figure 2, ref. 210, Figure 6, ref. 610.
[31] *See id.* at, for example, page 7, lines 11-28, page 17, lines 16-23, Figure 1, refs. 110, 120, Figure 6, refs. 620, 630, 640.
[32] *See id.* at, for example, page 4, lines 9-11, page 17, lines 3-14, Figure 6, ref. 610.
[33] *See id.* at, for example, page 4, lines 11-12, page 17, line 24 to page 18, line 3, Figure 6, ref. 640, 680.
[34] *See id.* at, for example, page 4, lines 12-14.

ARGUMENT
(37 C.F.R. § 41.37(c)(1)(vii))

As noted above, Su and Adams form the basis for all the claim rejections. In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure ("MPEP") states the following:

> The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness **cannot be sustained with mere conclusory statements**; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

See MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988, 78 U.S.P.Q.2d 1329, 1336 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 U.S.P.Q.2d at 1396 (quoting Federal Circuit statement with approval (emphasis added).

Further, as specifically noted in the Manual of Patent Examining Procedure, "[t]o establish *prima facie* obviousness of a claimed invention, **all** the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." *See* MPEP at 2143.03 (emphasis added). Further, "'**[a]ll words in a claim must be considered** in judging the patentability of that claim against the prior art.' *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA)." *See id.* (emphasis added).

With those principles in mind, the Applicants now turn to the claim rejections in particular.

I. The Proposed Combination Of Su And Adams Does Not Render Claims 1-5, 10, 12, 14-19, 22, And 23 Unpatentable

The Applicants first turn to the rejection of claims 1-5, 10, 12, 14-19, 22 and 23 as being unpatentable over Su in view of Adams.

A. Independent Claim 1

1. "adjusting the operation of the receiver portion based upon the first signal power measurement and the second signal power measurement"

The Office Action asserts that Su discloses all the limitations of claim 1 except for "wherein the adjusting comprises modifying at least one threshold related to processing of receive signal strength indicator data used in the operation of the radio frequency communication system." *See* November 13, 2009 Office Action at page 4.

For example, the Office Action specifically contends that Su discloses "adjusting the operation of the receiver portion based upon the first signal power measurement and the second signal power measurement." *See id.* As detailed below, however, Su also does not describe, teach or suggest this limitation.

Su relates to a "method and apparatus for **controlling transmitter power** in a code division multiple access (CDMA) or other wireless systems." *See* Su at column 1, lines 6-10 (emphasis added). In particular, Su discloses the following:

> A calibration method and apparatus are described. In one embodiment, the method includes a pair of transceivers performing a loop back test to determine a relationship between transmit and receive gain for each transceiver. A path loss between the first transceiver and a second transceiver is computed. The computation is made by transmitting a pair of signals in opposite directions between the first and second transceivers to determine a relationship between transmit path gain of the first transceiver and receive path gain of the second transceiver and a relationship between the transmit path gain of the second transceiver and receive path of the first transceiver. The transmit and receiver path gains are generated for the first transceivers based on the path loss and the relationship.

See id. at column 2, lines 35-48. Thus, as shown above, Su discloses a system that uses two transceivers. A path loss between the two transceivers is computed by transmitting signals in opposite directions. However, there is nothing in Su that describes, teaches or suggests adjusting operation of a **receiver** based on **multiple power measurements**.

Su discloses, however, "each **transmitter** in the wireless system adjusting its output power level to a predetermined power level." *See id.* at column 4, lines 9-19 (emphasis added). "[T]he mobile unit adjusts its **transmit power** to compensate for the variation in the path loss." *See id.* at column 8, lines 8-16 (emphasis added). Further, "the processing logic generates these values and, then using those values, makes adjustments to the **transmit power**." *See id.* at column 9, lines 31-33 (emphasis added).

Yet, contrary to the assertion in the Office Action, Su does not describe, teach or suggest adjusting operation of a **receiver** based on **multiple power measurements**. That is, Su does not describe, teach or suggest "adjusting the operation of the receiver portion based upon the first signal power measurement and the second signal power measurement," as recited in claim 1. The Applicants respectfully note that the Office Action cites only Su in rejecting this feature of claim 1, and does not assert that Adams discloses this particular aspect. Thus, for at least these reasons, the Applicants respectfully request reconsideration of the rejection of claim 1 and the claims that depend therefrom.

2. "wherein the adjusting comprises modifying at least one threshold related to processing of receive signal strength indicator data used in the operation of the radio frequency communication system"

Additionally, claim 1 recites, in part, "wherein the adjusting comprises modifying at least one **threshold** related to processing of receive signal strength indicator data used in the operation of the radio frequency communication system." The Office Action acknowledges that Su does not describe, teach or suggest this limitation, as noted above. *See* November 13, 2009 Office Action at page 4. In an attempt to overcome this deficiency, the Office Action relies on Adams. *See id.*

Adams discloses, however, comparing information with respect to setpoints, but not modifying a threshold related to processing of receive signal strength indicator data used in the operation of the radio frequency communication system. For example, Adams discloses the following:

> In a state 609 called the Calc state, the AGC controller 523 compares the respective received signal strength measurement to its respective setpoint. Based on the comparison, the AGC

> controller 523 calculates improved radio gain control bits to send to the transceiver 400 so as to reduce the setpoint errors.

See Adams at column 10, lines 49-54. A "setpoint" is not the same as a "threshold," however. A "setpoint" is "a specified constant value of a controlled variable of a dynamical process which a controller is required to maintain." A system strives to maintain a "setpoint." On the other hand, a "threshold" is a "limiting value of some variable of interest." ***See* Comprehensive Dictionary of Electrical Engineering – Second Edition, © 2005, CRC Press, pages 621 and 690**. A person of ordinary skill in the art would clearly understand the difference between a "setpoint" and a "threshold," as evident by the definitions of the terms in the Comprehensive Dictionary of Electrical Engineering, for example.

Moreover, even if one were to assume that a setpoint is a threshold, which the Applicants do not, the claim recites **modifying** at least one threshold. In stark contrast, Adams merely discloses **comparing** the "respective received signal strength measurement" to its respective setpoint.

Thus, while Adams discloses **comparing** a signal strength measurement to its respective **setpoint**, Adams does not describe, teach or suggest "wherein the adjusting comprises **modifying** at least one **threshold** related to processing of receive signal strength indicator data used in the operation of the radio frequency communication system," as recited in claim 1, for example. The Office Action acknowledges that Su does not describe, teach or suggest this limitation. Further, as explained above, Adams, which the Office Action relies on, also does not describe, teach or suggest the limitation. Thus, for at least this additional reason, the Applicants respectfully request reconsideration of the rejections of claims 1 and any claims depending therefrom.

B. Independent Claims 15 And 23

Claims 15 and 23 recite, in part, "the radio frequency communication system adjusting at least one characteristic of the receive signal strength indicator based on two signal power measurements using the switching circuitry and the transmitter circuitry."

The Office Action asserts that Su discloses "the radio frequency communication system adjusting at least one characteristic of the receive signal power based on two signal power

measurements using the switching circuitry and the transmitter circuitry." *See* November 13, 2009 Office Action at pages 5-6.

As explained above in Section I.A.1. with respect to claim 1, however, Su does not describe, teach or suggest adjusting receive signal power based on multiple signal power measurements. The Applicants respectfully note that the Office Action does not assert that other cited art discloses this aspect of claims 15 and 23. Thus, for at least these reasons, the Applicants respectfully request reconsideration of the rejection of claims 15, 23 and any claims that depend therefrom.

C. Claim 2

Claim 2 recites, in part, "wherein the arranging, taking, configuring, performing, and adjusting occur on a periodic basis." The Office Action rejects claim 2 by stating that "Su teaches the arranging, taking, configuring, performing, and adjusting occur on a periodic basis (column 4 lines 16-19)." *See* November 13, 2009 Office Action at page 6.

However, the portion of Su that the Office Action relies upon states the following:

> The technique described here allows the transmitter gain, receiver gain, and path loss to be determined in real-time in a closed loop-control scheme with each transmitter in the wireless system adjusting its output power level to a predetermined power level. In one embodiment, the real-time gain and path loss calibration scheme can determine the gain and path loss of a wireless system during network establishment and at periodic intervals during regular operation.

See Su at column 4, lines 11-19.

As shown above, the portion of Su that the Office Action relies on merely discloses that a determination of gain and path loss may be made at periodic intervals. The Office Action does not explain how this general "determination" necessarily describes, teaches, or suggests that all of "the arranging [as recited in claim 1], taking [as recited in claim 1], configuring [as recited in claim 1], performing [as recited in claims 1], and adjusting [as recited in claim 1] occur on a periodic basis," as recited in claim 2. Thus, for at least these additional reasons, the Applicants respectfully request reconsideration of the rejection of claim 2.

D. Claim 16

Claim 16 recites, in part, "wherein the adjusting is performed on a periodic basis." As noted above with respect to claim 2, the cited portion of Su does not necessarily describe, teach, or suggest "wherein the adjusting [the operation of the receiver portion based upon the first signal power measurement and the second signal power measurement, wherein the adjusting comprises modifying at least one threshold related to processing of receive signal strength indicator data used in the operation of the radio frequency communication system] is performed on a periodic basis," as recited in claim 16. Thus, for at least this additional reason, the Applicants respectfully request reconsideration of the rejection of claim 16.

E. Claims 5 and 19

The Applicants respectfully request reconsideration of the rejection of claims 5 and 19 for at least the reasons discussed above with respect to claims 1 and 19, respectively.

Additionally, claim 5 recites, in part, "wherein the adjusting comprises calibrating at least one of a slope and a fixed offset of a receive signal strength indicator." Claim 19 recites similar limitations.

The Office Action rejects claims 5 and 19 by merely stating the following:

> Su and Adams et al. teach the limitations of claims 1 and 15. Adams et al teach wherein the at least one characteristic comprises at least one of a slope and a fixed offset of the receive signal strength indicator (column 13 lines 53-67, setpoint error).

See November 13, 2009 Office Action at page 7. As explained above with respect to claims 1 and 15, however, neither Su nor Adams describes, teaches or suggests all the limitations of claims 1 and 15.

Additionally, Adams discloses comparing with respect to a **setpoint**, but not a threshold. Adams discloses adjusting the gain of the receive path, but the Office Action does not explain how such an adjustment of the gain of the receive path describes, teaches or suggests **adjusting the slope and offset of a receive signal strength indicator (RSSI)**. Thus, for at least these additional reasons, the Applicants respectfully request reconsideration of the rejection of claims 5 and 19.

F. Claim 22

The Applicants respectfully request reconsideration of claim 22 for at least the reasons discussed above with respect to claim 15.

Additionally, claim 22 recites, in part, "wherein the adjusting comprises **modifying** at least one **threshold** related to receive signal strength indicator data used in the operation of the radio frequency communication system." The Office Action relies on Adams as disclosing these limitations. *See* November 13, 2009 Office Action at page 8.

As explained above in Section I.A.2 with respect to claim 1, while Adams discloses comparing a signal strength measurement to its respective setpoint, Adams does not describe, teach or suggest "wherein the adjusting comprises **modifying** at least one **threshold** related to receive signal strength indicator data used in the operation of the radio frequency communication system," as recited in claim 22. Thus, for at least this additional reason, the Applicants respectfully request reconsideration of the rejection of claim 22.

II. The Proposed Combination Of Su, Adams, and Bednekoff Does Not Render Claims 6, 7, 20, And 21 Unpatentable

A. Claims 6, 7, 20, And 21

The Applicants respectfully submit that the proposed combination does not render claims 6, 7, 20, and 21 unpatentable for at least the reasons discussed above with respect to claims 1 and 15.

B. The Proposed Combination Does Not Render Claims 6 And 20 Unpatentable For Additional Reasons

Also, claim 6 recites, in part, "wherein the adjusting comprises modifying the value of a receive signal strength indicator using an affine function." Claim 20 recites a similar limitation. The Office Action relies on Bednekoff as disclosing this limitation. *See* November 13, 2009 Office Action at page 8. In particular, the Office Action notes Bednekoff at column 7, lines 9-60 in support of the rejection. *See id.*

However, this cited portion of Bednekoff does not even mention "affine function," as recited in claims 6 and 20. Indeed, the word "affine" is nowhere to be found in Bednekoff. Affine is a specific type of function. The Office Action summarily concludes, however, that

"affine function" is "interpreted as a coordination or transformation relationship." *See* November 13, 2009 Office Action at page 3.

Thus, in an effort maintain the rejection despite not finding the relevant limitations of claims 6 and 20 in the cited references, the Office Action simply concludes that an affine function is merely a "coordination or transformation relationship," without any legal or factual authority to support such statement. However, the "Federal Circuit has stated that "rejections on obviousness **cannot be sustained with mere conclusory statements**; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *See* MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988, 78 U.S.P.Q.2d 1329, 1336 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 U.S.P.Q.2d at 1396 (quoting Federal Circuit statement with approval (emphasis added). It clearly is not enough for an Examiner to simply conveniently create parallels between phrases and terms when none, in fact, exist. The Office Action simply does not make it clear that an affine function is necessarily a "coordination or transformation relationship," or vice versa.

Accordingly, the Office Action has not explained how Bednekoff can possibly disclose the limitation recited in claims 6 and 20. Thus, for at least these additional reasons, the Applicants respectfully request reconsideration of the rejection of claims 6 and 20.

III. The Proposed Combination Does Not Render Claim 9 Unpatentable

For at least the reasons discussed above with respect to claim 1, the Applicants respectfully request reconsideration of the rejection of claim 9.

Additionally, Claim 9 recites, in part, "wherein the adjusting comprises modifying at least one of a receive signal strength indicator slope and a receive signal strength indicator fixed offset in an analog receive signal strength indicator circuit."

The Office Action contends that Su and Adams "teach wherein the adjusting comprises modifying at least one of a receive signal strength indicator slope and a receive signal strength indicator fixed offset." *See* November 13, 2009 Office Action at page 9.

The Applicants respectfully submit that the Office Action has not shown that Su or Adams, alone or in combination with one another, describes, teaches, or suggests "wherein the adjusting comprises modifying at least one of a receive signal strength indicator slope and a

receive signal strength indicator fixed offset." Further, the Office Action has not explained how Adams overcomes these deficiencies. For at least these additional reasons, the Applicants respectfully request reconsideration of the rejection of claim 9.

IV. The Proposed Combination Does Not Render Claims 11 And 13 Unpatentable

For at least the reasons discussed above with respect to claim 1, the Applicants respectfully request reconsideration of the rejection of claims 11 and 13.

Additionally, claim 13 recites, in part, "wherein the relatively higher level of radio frequency signal corresponds to a signal power of greater than approximately -30 dBm." The Office Action relies on Kim 803 at column 2, lines 27-64 as disclosing this limitation. *See* November 13, 2009 Office Action at page 10.

However, this portion of Kim 803 teaches that "level of the received signal can **be detected only when an RF signal of a level corresponding to a -30 dBm through -110 dBm range** is supplied to the IF processor." *See* Kim 803 at column 2, lines 30-33 (emphasis added). Thus, at the signal level as recited in claim 13, Kim teaches that signal cannot be detected. The limitation "greater than approximately -30 dBm (that is, above -30dBm) differs than signals at or below -30dBm.

Thus, for at least these additional reasons, the Applicants respectfully submit that the proposed combination of Su, Adams, and Kim 803 does not render claim 13 unpatentable.

V. CONCLUSION

For at least the reasons discussed above, the Applicants respectfully submit that the pending claims are allowable. Therefore, the Board is respectfully requested to reverse the rejections of pending claims 1-7 and 9-23.

VI. PAYMENT OF FEES

The Commissioner is authorized to charge any necessary fees, including the $540 fee for this Appeal Brief, or credit overpayment to Deposit Account 13-0017.

Respectfully submitted,

Dated: May 24, 2010

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CLAIMS APPENDIX
(37 C.F.R. § 41.37(c)(1)(viii))

1. A method of operating a radio frequency communication system having a receiver portion circuitry and transmitter portion circuitry, the method comprising:

arranging the transmitter portion in a first transmitter configuration and the receiver portion in a first receiver configuration;

taking a first signal power measurement;

configuring the transmitter portion in a second transmitter configuration and the receiver portion in a second receiver configuration, wherein the first transmitter configuration is different than the second transmitter configuration and the first receiver configuration is different than the second receiver configuration;

performing a second signal power measurement; and

adjusting the operation of the receiver portion based upon the first signal power measurement and the second signal power measurement, wherein the adjusting comprises modifying at least one threshold related to processing of receive signal strength indicator data used in the operation of the radio frequency communication system.

2. The method of claim 1 wherein the arranging, taking, configuring, performing, and adjusting occur on a periodic basis.

3. The method of claim 1 wherein the radio frequency communication system communicates digital information.

4. The method of claim 1 wherein the receiver portion and the transmitter portion are located within the same integrated circuit.

5. The method of claim 1 wherein the adjusting comprises calibrating at least one of a slope and a fixed offset of a receive signal strength indicator.

6. The method of claim 1 wherein the adjusting comprises modifying the value of a receive signal strength indicator using an affine function.

7. The method of claim 6 wherein the affine function is implemented using a look-up table.

9. The method of claim 1 wherein the adjusting comprises modifying at least one of a receive signal strength indicator slope and a receive signal strength indicator fixed offset in an analog receive signal strength indicator circuit.

10. The method of claim 1 wherein the arranging provides a relatively lower level of radio frequency signal to the receiver portion.

11. The method of claim 10 wherein the relatively lower level of radio frequency signal corresponds to a signal power of less than approximately -90 dBm.

12. The method of claim 1 wherein the configuring provides a relatively higher level of radio frequency signal to the receiver portion.

13. The method of claim 12 wherein the relatively higher level of radio frequency signal corresponds to a signal power of greater than approximately -30 dBm.

14. The method of claim 1 further comprising: adjusting the operation of the transmitter portion based upon the first signal power measurement and the second signal power measurement.

15. A radio frequency communication system comprising:

transmitter circuitry for generating a radio frequency signal, the output of the transmitter circuitry coupled to at least one antenna;

switching circuitry having an input coupled to the at least one antenna, an output, and at least a first mode and a second mode of operation, the first mode of the switching circuitry passing a signal from the input to the output with a relatively lower level of attenuation, and the second mode of the switching circuitry passing a signal from the input to the output with a relatively higher level of attenuation;

receiver circuitry for accepting a radio frequency signal from the output of the switching circuitry, the receiver circuitry producing at least a receive signal strength indicator; and

the radio frequency communication system adjusting at least one characteristic of the receive signal strength indicator based on two signal power measurements using the switching circuitry and the transmitter circuitry.

16. The system of claim 15 wherein the adjusting is performed on a periodic basis.

17. The system of claim 15 wherein the radio frequency communication system communicates digital information.

18. The system of claim 15 wherein the receiver circuitry and the transmitter circuitry are located within the same integrated circuit.

19. The system of claim 15 wherein the at least one characteristic comprises at least one of a slope and a fixed offset of the receive signal strength indicator.

20. The method of claim 15 wherein the adjusting comprises modifying the value of the receive signal strength indicator using an affine function.

21. The method of claim 20 wherein the affine function is implemented using a look-up table.

22. The method of claim 15 wherein the adjusting comprises modifying at least one threshold related to receive signal strength indicator data used in the operation of the radio frequency communication system.

23. A radio frequency communication system comprising:

transmitter circuitry configured to be arranged in first and second configurations, wherein the first configuration is different than the second configuration;

switching circuitry; and

receiver circuitry for accepting a radio frequency signal from the switching circuitry, the receiver circuitry producing at least a receive signal strength indicator;

the radio frequency communication system adjusting at least one characteristic of the receive signal strength indicator based on two signal power measurements using the switching circuitry and the transmitter circuitry.

EVIDENCE APPENDIX
(37 C.F.R. § 41.37(c)(1)(ix))

(1) U.S. 6,272,322 ("Su"), entered into record by Examiner in February 17, 2009 Office Action.

(2) U.S. 7,212,798 ("Adams"), entered into record by Examiner in February 17, 2009 Office Action.

(3) U.S. 6,603,810 ("Bednekoff"), entered into record by Examiner in January 4, 2007 Office Action.

(4) U.S. 6,704,352 ("Johnson"), entered into record by Examiner in January 4, 2007 Office Action.

(5) U.S. 5,999,803 ("Kim"), entered into record by Examiner in February 17, 2009 Office Action.

RELATED PROCEEDINGS APPENDIX
(37 C.F.R. § 41.37(c)(1)(x))

The Applicants are unaware of any related appeals or interferences.